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(54) **SYSTEM AND METHOD FOR GENERATING
USER INPUTS FOR A VIDEO GAME**

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ABSTRACT

A system for generating video game inputs is provided. The system comprises an input unit operable to obtain images of a passive non-luminous object being held by a user as a video games controller. The system also comprises an object detector and object pose detector for detecting the object and its respective pose in the obtained images. The pose detector is configured to detect the pose of the object based on at least one of a (i) contour detection operation and (ii) the output of a machine learning model that has been trained to detect the poses of passive non-luminous objects in images. A user input generator is configured to generate user inputs based on the detected changes in pose of the passive non-luminous object and to transmit these to a video game unit at which a video game is being executed. A corresponding method is also provided.

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